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# United States Patent [19]

## Frasca, Jr.

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[54]	OUTPATIENT	CARE DATA	SYSTEM

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[52] **U.S. Cl.** ...... **705/3**; 705/2; 604/66; 604/67

## [56] References Cited

#### U.S. PATENT DOCUMENTS

3,872,448	3/1975	Mitchell, Jr 705/3
4,531,527	7/1985	Reinhold, Jr. et al 600/509
4,737,912	4/1988	Ichikawa 364/413
4,803,625	2/1989	Fu et al 600/483
4,878,175	10/1989	Norden-Paul et al 705/2
4,933,873	6/1990	Kaufman et al 364/513.5
5,012,229	4/1991	Lennon et al 340/706
5,036,462	7/1991	Kaufman et al 364/413.01
5,038,800	8/1991	Oba 128/904
5,065,315	11/1991	Garcia 705/2
5,084,828	1/1992	Kaufman et al 364/479
5,265,010	11/1993	Evans-Paganelli et al 364/413.02
5,291,399	3/1994	Chaco 705/3
5,319,363	6/1994	Welch et al 340/825.36
5,319,543	6/1994	Wilhelm 364/401
5,361,202	11/1994	Doue 705/3
5,410,471	4/1995	Alyfuku et al 364/413.02
5,549,117	8/1996	Tacklind et al 600/529
5,558,638	9/1996	Evers et al 604/66
5,713,350	2/1998	Yokota et al 600/300
5,724,580	3/1998	Levin et al 707/104
5,845,253	12/1998	Rensimer et al 705/2
5,867,821	2/1999	Ballantyne et al 705/2

## FOREIGN PATENT DOCUMENTS

233731 9/1993 Japan ...... C06F 15/42

## 2495 1/1997 Japan ...... C08B 25/04

### OTHER PUBLICATIONS

"Current Status of Telemedicine–Medical Circumstances Being Changed by Network", Journal of Media, vol. 13, No. 10, p. 9–11, Oct. 1995.

Helen Ellis Memorial Hospital, Tampa Bay Area Hospital and Telemedicine Firm Join to Launch Moon—A Medical Communications Network Which Brings the Hospital into the Patient's Home, Dialog File 613:Pr Newswire, pp. 1–2, Oct. 1995.

LanVision Systems, Inc., Health Information System Chooses LanVision as its Document Imaging Partner, Dialog File 613:PR Newswire, pp. 1–2, Mar. 1997.

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#### [57] ABSTRACT

An outpatient care data system dedicated to the transmission, storage and retrieval of outpatient data relating to care of outpatients is provided with a regional data system located at a regional location, a plurality of metropolitan area data systems operatively connected to the regional data system, each of the metropolitan area data systems being located at a different metropolitan location. Each metropolitan area data system may be provided with an electronic nursing station located within a hospital and first and second types of outpatient systems operatively coupled to the electronic nursing station on a real-time basis. The first type of outpatient system is situated at a first non-hospital location remote from the hospital and includes a medical device associated with an outpatient present at the first non-hospital location, and the second type of outpatient system is situated at a second non-hospital location remote from the hospital and includes a medical device associated with an outpatient present at the second non-hospital location.

#### 29 Claims, 15 Drawing Sheets

